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EXAMINER

ZURITA, JAMES H

ART UNIT PAPER NUMBER

3625

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/482,843

Applicant(s)

PEINADO ET AL.

Examiner

James H. Zurita

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 121, 124 and 126-135 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 121, 124, 126-135 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Prosecution History

On 13 January 2000, applicant filed the instant application. It is a continuation of application 09/290363, filed 12 April 1999, now US patent 7103574, issued 5 September 2006. Both claim priority to provisional application 60/126614, filed 27 March 1999.

On 19 April 2006, the Office rejected claims 121, 124 and 126-135.

On 17 July 2006, applicant filed a response.

Response to Amendment

Applicant's submission of 17 July 2006 has been entered.

Applicant amended claims 121, 124, 126-135.

Claims 121, 124, 126-135 are pending and will be examined.

Response to Arguments

Applicant's arguments filed 17 July 2006 have been fully considered but they are not persuasive.

Objections to the drawings are withdrawn in view of amendment.

Objection to the Specifications are withdrawn in view of amendment.

Arguments concerning 35 USC 101, 112 and 103 are maintained.

Arguments concerning the declaration do not overcome the requirements of 37 CFR.

Oath/Declaration

The oath or declaration filed ay 2, 2000.i defective. A new oath or declaration in compliance CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).

It was not executed in accordance with either 37 CFR 1.66 or 1.68.

Again, the declaration contains a non-initialed alteration to the filing date of the provisional application 60/126,614. Additionally, the declaration has not been signed by any of the inventors.

Claim Rejections - 35 USC § 112 – first paragraph

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 121, 124, and 126-135 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claims are not enabled for any specific physical or logical relationship among data elements, and as such are not enabled, particularly, in a manner characteristic of a "**data file**" and "**data structure**." The Examiner notes that the

specification provides no specific definition of the phrase "**data file**" and "**data structure**".

The Examiner has, therefore, relied upon the definition of "**data structure**" cited in *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994). Such definition states that a "**data structure**" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." (The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993)).

The specification, in this case, does not enable any such physical or logical relationship of data elements designed to support specific data manipulation functions in a manner which rises to meet this definition of a "**data file**" and "**data structure**" (see also related discussion under 35 USC 101, below).

Claim Rejections - 35 USC § 112 – second paragraph

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 121, 124, and 126-135 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preambles of claims 121, 124, and 126-135 recite a "**data file**" and "**data structure**", however, the bodies of these claims fail to define any physical or logical relationship between data elements which serves to distinguish such data elements as constituents of a **data file** and **data structure**, per se (see related discussion under 35

USC 112, first paragraph above and related discussions under 35 USC 101 below). Therefore, the scope of the claims is unclear, since the bodies of the claims are not commensurate in scope to the preambles.

In claims 129, 130, and 133: the numbering of the data fields should progress numerically from the "first" through "fourth" data fields already set forth in claim 121. Each of the "fourth" data fields recited in claims 129, 130, and 133 have been considered as --fifth-- data fields, while the "fifth" data field recited in claim 133 has been considered as a --sixth-- data field for examination purposes.

Applicant must make all appropriate corrections.

Claim Rejections - 35 USC 101

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 121, 124, and 126-135 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claimed Subject Matter

Claims 121, 124, and 126-135 recite, in combination, "a computer-readable medium having stored thereon a ***"data file"*** and ***"data structure"***". The bodies of claims 121, 129, 130, and 133 proceed to define the ***"data file"*** and ***"data structure"*** by setting forth a plurality of data fields containing respective data (i.e., encrypted digital content, a content or package ID, license acquisition information, a

content provider public key, a key ID, a certificate, a first certificate, and a second certificate).

Authority

Again, a review of MPEP 2106 (IV) (B) (1) reveals (emphasis added):

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material." Abstract ideas, *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, *Schrader*, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of **data structures** and computer programs which impart functionality when employed as a computer component. (The definition of "**data structure**" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to **data structure** stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific **data structure** stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a **data structure** per se held nonstatutory). When nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, stored in a computer-readable medium does not make it statutory. Such a result would exalt form over substance. *In re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under 101, the claimed invention, as a whole, must be evaluated for what it is.") (quoted with approval in *Abele*, 684 F.2d at 907, 214 USPQ at 687). See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer component and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law.

Analysis

Prong 1: Are the claims directed to descriptive material, per se?

It is noted that the claims recite some form of descriptive material in combination with a computer-readable medium. The descriptive material is recited as a **"data file"** and **"data structure"**. The **"data file"** and **"data structure"** comprise a plurality of various specific data elements contained in respective data fields. In that the descriptive material is recited in combination with a computer-readable medium, the claims are not directed to the descriptive material, per se.

Prong 2: Does any of the descriptive material constitute functionally descriptive material?

A review of the claims reveals that none of the data elements, when considered alone or together forming the **"data file"** and **"data structure"**, permit a function of the data element(s) to be realized through the use of technology. Although the data elements recited may be used in support of the realization of some miscellaneous function, such realization is not a realization of a function of the data elements themselves. Accordingly, the data elements recited, when considered alone or together forming the **"data file" and "data structure"**, do not constitute functionally descriptive material.

Prong 3: If the descriptive material does not constitute functionally descriptive material, does the descriptive material constitute a **"data file"** and **"data structure"**?

Applicant characterizes the various data elements assigned to respective data fields as a **"data file" and "data structure"**. The Examiner notes that the specification

provides no special definition of the phrase "**data structure**", and the Examiner, therefore, relies upon the definition of the phrase "**data structure**" cited in In re Warmerdam, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994). Such definition states that a "**data structure**" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." (The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993)).

Is there a physical relationship among data elements?

A review of the claims does not reveal any physical relationship among the data elements of the recited "**data file**" and "**data structure**" which is designed to support specific data manipulation functions. Although the claims recite the presence of a plurality of data fields which each contain a respective one of the plurality of data elements, the claims fail to establish any relational organization of the data fields and their respective data elements among each other which gives rise to a physical arrangement as a "**data file**" and "**data structure**", per se. The mere presence and numerical labeling of the various data fields and the further assignment of the various data elements to a respective, numerically labeled data field does not amount to a real organization of the data fields and their respective data elements into a physical arrangement. This is because a numerical labeling of a data field, per se, is not indicative of a memory position from among a pool of free memory positions at which a respective data element is stored.

As an example, a simple array "**data file**" and **data structure** represents an organizational form for a first data element (DE1) and a second data element (DE2). Data elements DE1 and DE2 may be assigned to a first data field (DF1) and a second data field (DF2), respectively. Data fields DF1 and DF2 are located in memory relative to each other at respective memory positions (P1, P1+1) from among a pool of reserved free memory positions (FMP1, FMP2, FMP3, and FMP4). For example, when $P1 = FMP1$, then $P1+1 = FMP2$. This results in the memory positions of the pool of reserved free memory positions to be filled as follows: (DE1, DE2, 0, 0]. Further, when $P1 = FMP2$, then $P1+1 = FMP3$. This results in the memory positions of the pool of reserved free memory positions being filled as follows: (0, DE1, DE2, 0]. Finally, when $P1 = FMP3$, then $P1+1 = FMP4$. This results in the memory positions of the pool of reserved free memory positions being filled as follows: (0, 0, DE1, DE2].

The above example serves to show that the assignment of a particular data element to a numerically labeled data field does not, in and of itself, establish a relationship of the particular data elements to each other as stored in memory. Rather, a positional relationship among the data fields must also be established in order to provide a relational organization of the data fields and their respective data elements which gives rise to a physical arrangement of the data elements in forming a "**data file**" and "**data structure**", per se.

Also, from the above example it can be seen that the numerical labels ascribed to the data fields in the instant claims do not, alone, establish the relative positioning of

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the various data elements in respective memory positions in a pool of reserved free memory positions. It then follows that there is no indication in the claims as to what organizational form the data elements take in relationship to each other upon any subsequent storage in the respective memory positions. Accordingly, there is no indication in the claims as to what physical arrangement the data elements assume in constitution of the recited **"data file"** and **"data structure"**.

Is there a logical relationship among data elements?

A further review of the claims does not reveal any logical relationship among the data elements of the recited **"data file"** and **"data structure"** which is designed to support specific data manipulation functions. The only identifiable relationship among the recited data elements appears to be merely a conceptual one that is born out of a data element's assignment to one of the numerically labeled data fields. This relationship, however, is seemingly arbitrary because each data element's assignment to one of the numerically labeled data fields appears to have arisen solely for the purposes of claim construction, rather than for the purposes of establishing some real logical relationship among the data elements.

For example, there is no apparent reason why any of the various data elements could not be contained in any of the various data fields as opposed to the respective data field to which the various data elements are assigned in the claims. This is because it is not apparent that the assignment of any given data element to a respective, numerically labeled data field effects any logical relationship among the data

elements which is designed to support specific data manipulation functions. It appears that any assignments of the data elements to respective, numerically labeled data fields different from those assignments recited in the claims would leave any logical relationship already present in the claims unaffected.

Accordingly, although characterized as a "**data structure**" by Applicant, the claims do not set forth a **data structure**, as such, as defined in The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993). Rather, the "data structure" recited by Applicant amounts to nothing more than an indexed catalog of a plurality of various specific data elements.

Conclusion

Claims 124, 126-128, 131, 132, and 134-136 depend, either directly or indirectly, from claim 121. A review of these dependent claims reveals the recitation of no further fields and no further data elements. The recitations here do not provide either functionally descriptive material or a "**data file**" and **data structure**, per se. Accordingly, these claims fail to further distinguish these dependent claims from claim 121 in a manner that precludes them from the same judicially created exception to patent eligible subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Claims 121, 124, and 126-135 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson (U.S. Patent No. 5,765,152).

Erickson discloses a computer-readable medium (col. 2, line 61-col. 3, lines 17) having stored thereon a **data file and data structure** (i.e. a "document" comprising first through sixth data fields containing respective first through sixth data elements). As shown in Fig. 1A, a first data field contains header data, a second data field contains document ID data, a third data field contains content data, a fourth data field contains source work extensions data, a fifth data field contains minimum permissions data, and a sixth data field contains digital document signature data. Erickson teaches that one of ordinary skill in the art will appreciate that other orderings of the data within the data structure are possible (col. 12, lines 56-58). Particularly regarding the nature of the Document ID, Erickson teaches:

"Document Identifier 22 uniquely identifies the DOCUMENT 20 by the registration server upon which the DOCUMENT has been registered, and the DOCUMENT's registration or index number on that server. This registration code typically contains the server name and registration index." (col. 11, lines 37-43).

"The VIEWER also facilitates on-line licensing of DOCUMENT packaged works. Based on registration information encapsulated with the data, i.e. the Document ID, the VIEWER contacts the document's registration server and initiates an authorization transaction." (col. 20, lines 51-55).

The Examiner notes that Erickson discloses a total of six distinct data fields (as recited in the instant claims). The Examiner further notes that the only difference between the **data file and data structure** of the instant claims and the **data file and data structure** of Erickson lies in non-functionally descriptive material contained within their respective data fields. As such, the content of the non-functionally descriptive material will not distinguish the claimed medium/data file/**data structure** from the prior art medium/data file/**data structure**, and, accordingly, one of ordinary

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skill in the art would have recognized that any modification of such non-functionally descriptive material from that already disclosed in the prior art would not have moved to have distinguished the claimed medium/data file/***data structure*** as a non-obvious variant of the prior art ***medium/data file/data structure***. In re Ngai, 367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004). See also In re Gulack, 703 F.2d 1381, 1385-86, 217 USPQ 401, 404 (Fed. Cir. 1983).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Zurita whose telephone number is 571-272-6766. The examiner can normally be reached on 8a-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on 571-272-6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Zurita
Primary Examiner
Art Unit 3625
29 September 2006

James Zurita
Primary Examiner